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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/594,512 | 09/28/2006 | Yasuaki Koiwa | 2006_1656A | 1800 |

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WASHINGTON, DC 20006-1021

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| EXAMINER |
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REIS, RYAN ALEXANDER

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| ART UNIT | PAPER NUMBER |
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08/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/594,512 | Applicant(s) KOIWA, YASUAKI | |
| | Examiner RYAN REIS | Art Unit 3752 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/28/2006 and 11/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In the amendments to the claims filed on 09/28/2006, applicant has cancelled claims 1-15 and added claims 16-21. Therefore, claims 16-21 are pending in the application and are addressed below.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. Claim 21 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claim 20, the “cuff” element is not clearly described or distinctly claimed to clearly understand the element. As to claim 21, the claim reads “...head cover as defined in the above claims...” which is indefinite and does not clearly describe the intended limitations of the head cover.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,072,792 to Simons et al. (Simons et al.).

As to claim 16, Simons et al. discloses a sprinkler head cover comprising: a housing (25 and 27) adapted to be attached to a sprinkler head which is connected to a water supply piping (at 3) and in which, in case of fire, a valve (5) disposed inside said sprinkler head is open to allow a fire-extinguishing liquid in the water supply piping to spread around; a cover plate (32) adapted to cover over the sprinkler head so that the sprinkler head cannot be seen from outside; and a mount (31) installed in the housing

and having a hole (where 30 is inserted) inside thereof, in which a cover plate connecting surface of the mount has a flange configuration (bottom of 31 is a flange), wherein the cover plate and the mount are connected to each other by solidifying a molten low melting point alloy after its having flown out from the hole to the cover plate side (see column 4, lines 18-22).

As to claim 17, Simons et al. discloses the cover plate has a curved surface configuration (see Figure 1) and the cover plate connecting surface of the mount having a flange configuration defines an inclined-face (see Figure 5) to be placed in contact with the curved surface of the cover plate.

As to claim 18, Simons et al. discloses an aligning means (mounts 31 must be aligned to receive each foot 30) is disposed in the cover plate connecting surface of the mount.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,072,792 to Simons et al.

As to claim 19, Simons et al. discloses the housing is made of a heat insulating material (see column 5, lines 25-30) but does not expressly disclose the cover plate and the mount being made of a member having an excellent thermal conductivity.

However, it is well known in the art that materials with excellent thermal conductivity transfer heat faster.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have made the cover plate and mount of Simons et al. from a material having an excellent thermal conductivity in order to quickly transfer the heat necessary to melt the low melting point alloy so that a quick response time can be achieved to put out a fire.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,072,792 to Simons et al. in view of US Patent 6,082,463 to Ponte (Ponte).

As to claim 20, Simons et al. discloses the claimed invention above and a cut (between feet 30) defined in a peripheral edge of the housing but does not disclose a leaf spring folded in three is disposed between the housing and the inclined-face portion of the cover plate having a curved surface configuration and a cuff disposed in an end of a housing contact surface of the leaf spring.

However, Ponte discloses a leaf spring (68) for the purpose of removing a cover plate (58) when solder joints are melted (see column 3, lines 16-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have added a leaf spring as taught by Ponte at the cut in the housing of Simons et al. in order to facilitate removal of the cover plate when the alloy melts.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 5,083,616 to Polan; 5,152,344 to Fischer et al.; 5,372,203 to Galaszewski; 6,374,919 to Neill; and 6,840,329 to Kikuchi et al. show sprinkler heads with cover plates and fusible materials.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN REIS whose telephone number is (571)270-5060. The examiner can normally be reached on Monday through Friday 8:00am to 6:00pm EST.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RR/

Examiner, Art Unit 3752

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752